

1 Amendments to the claims:

2 1. Cancel

3 2. Cancel

4 3. Cancel

5 4. (Currently amended) The A simplified "T" interchange design
6 of claim 1 for an intersection of a four lane expressway with a two
7 lane highway, said interchange design comprising:

8 a first road surface with traffic moving in a left to right
9 direction, said first road surface having at least two lanes for
10 traffic moving in said left to right direction;

11 a second road surface for traffic moving in a right to left
12 direction, said second road surface having at least two lanes for
13 traffic moving in said right to left direction;

14 an open space between said first road surface and said second
15 road surface, said open space substantially forming a median;

16 a third road surface for traffic intending to intersect said
17 first road surface and said second road surface; said third road
18 surface having at least one lane for traffic moving toward said
19 first road surface and said second road surface; said third road
20 surface having at least one lane for traffic moving away from said
21 first road surface and said second road surface;

22 a bridge located on said first road surface substantially
23 where said third road surface intersects said first road surface,
24 said bridge configured so that vehicles traveling on said first



1 road surface pass over said bridge, and above said third road
2 surface; said bridge configured so that vehicles traveling on said
3 third road surface pass under said bridge, and under said first
4 road surface;

5 an exit ramp from said second road surface onto said median ,
6 said exit ramp connecting onto said third road surface;

7 whereby a "simplified "T' interchange design " is provided
8 that provides many benefits; most importantly, all the hazardous
9 elements of existing expressway "T" intersections are eliminated,
10 the results will be the elimination of all future serious and
11 fatal accidents; also, the new "T" interchange design will be very
12 safe for vehicles passing through the new interchange from any
13 direction as vehicles are never required to cut across lanes of
14 high speed traffic when making transitions between the two lane
15 highway and the four lane expressway; and any vehicles passing in
16 front of one another would at most be traveling at only a few miles
17 an hour, thus, any accidents would be minor; additionally, "on
18 ramps" and "off ramps" can be provided so that vehicle making
19 transitions are able to get up to speed before merging with high
20 speed traffic; also, the new simplified interchange design will not
21 be confusing for vehicles passing through the interchange from any
22 direction even if the interchange is built on a curving expressway,
23 and the interchange would very inexpensive to build when compared
24 to the cost to build a conventional interchange, as the simplified

1 design for a "T" interchange can built for approximately 20% to
2 25% of the cost of a traditional interstate interchange thereby
3 saving government transportation departments millions of dollars,
4 additionally, the simplified "T" interchange design may only take
5 up 20% to 25% of the space of a conventional expressway freeway
6 interchange, thereby saving money and land for other uses.

7

8 5. (Currently amended) The simplified "T" interchange design
9 of claim 4 including an on ramp connecting from said third road
10 surface, passing through said median, and connecting onto said
11 second road surface.

12

13 6. (Previously amended) A simplified "T" interchange design
14 for an intersection of a four lane expressway with a two lane
15 highway, said interchange design comprising:

16 a first road surface with traffic moving in a left to right
17 direction, said first road surface having at least two lanes for
18 traffic moving in the left to right direction;

19 a second road surface for traffic moving in a right to left
20 direction, said second road surface having at least two lanes for
21 traffic moving in the right to left direction;

22 an open space between said first road surface and said second
23 road surface, said open space substantially forming a median;

24 a third road surface for traffic intending to intersect said

1 first road surface and said second road surface; said third road
2 surface having at least one lane for traffic moving toward said
3 first road surface and said second road surface; said third road
4 surface having at least one lane for traffic moving away from said
5 first road surface and said second road surface;

6 a bridge located on said third road surface substantially
7 where said third road surface intersects said first road surface,
8 said bridge configured so that vehicles traveling on said first
9 road surface pass under said bridge, and, under said third road
10 surface, said bridge configured so that vehicles traveling on said
11 third road surface pass over said bridge, and over said first road
12 surface;

13 whereby a "simplified "T' interchange design " is provided
14 that provides many benefits; most importantly, all the hazardous
15 elements of existing expressway "T" intersections are eliminated,
16 the results will be the elimination of all future serious and
17 fatal accidents; also, the new "T" interchange design will be very
18 safe for vehicles passing through the new interchange from any
19 direction as vehicles are never required to cut across lanes of
20 high speed traffic when making transitions between the two lane
21 highway and the four lane expressway; and any vehicles passing in
22 front of one another would at most be traveling at only a few miles
23 an hour, thus, any accidents would be minor; additionally, "on
24 ramps" and "off ramps" can be provided so that vehicle making

1 transitions are able to get up to speed before merging with high
2 speed traffic; also, the new simplified interchange design will not
3 be confusing for vehicles passing through the interchange from any
4 direction even if the interchange is built on a curving expressway,
5 and the interchange would very inexpensive to build when compared
6 to the cost to build a conventional interchange, as the simplified
7 design for a "T" interchange can built for approximately 20% to
8 25% of the cost of a traditional interstate interchange thereby
9 saving government transportation departments millions of dollars,
10 additionally, the simplified "T" interchange design may only take
11 up 20% to 25% of the space of a conventional expressway freeway
12 interchange, thereby saving money and land for other uses.

13

14 7. (previously amended) The simplified "T" interchange design of
15 claim 6 including an exit ramp from said first road surface
16 connecting onto said third road surface.

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18 8. (previously amended) The simplified "T" interchange design of
19 claim 6 including an exit ramp from said third road surface
20 connecting onto said first road surface.

21

22 9. (previously amended) The simplified "T" interchange design of
23 claim 6 including an exit ramp from said second road surface onto
24 said median, said exit ramp connecting onto said third road

1 surface.

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3 10. (previously amended) The simplified "T" interchange design of
4 claim 6 including an on ramp connecting from said third road
5 surface, passing through said median, and connecting onto said
6 second road surface.

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8 11. (previously submitted) A simplified "T" interchange design for
9 an intersection of a four lane expressway with a two lane highway,
10 said interchange design comprising:

11 a first road surface with traffic moving in a left to right
12 direction, said first road surface having at least two lanes for
13 traffic moving in said left to right direction,

14 a second road surface for traffic moving in a right to left
15 direction, said second road surface having at least two lanes for
16 traffic moving in said right to left direction ,

17 an open space between said first road surface and said second
18 road surface, said open space substantially forming a median;

19 a third road surface for traffic intending to intersect said
20 first road surface and said second road surface; said third road
21 surface having at least one lane for traffic moving toward said
22 first road surface and said second road surface; said third road
23 surface having at least one lane for traffic moving away from said
24 first road surface and said second road surface;

1 a bridge located on said first road surface substantially
2 where said third road surface intersects said first road surface,
3 said bridge configured so that vehicles traveling on said first
4 road surface pass over said bridge, and over said third road
5 surface; said bridge configured so that vehicles traveling on said
6 third road surface pass under said bridge, and under said first
7 road surface;

8 an exit ramp from said second road surface onto said median ,
9 said exit ramp connecting onto said third road surface;

10 an on ramp connecting from said third road surface, passing
11 through said median, and connecting onto said second road surface;

12 whereby a "simplified "T' interchange design " is provided
13 that provides many benefits; most importantly, all the hazardous
14 elements of existing expressway "T" intersections are eliminated,
15 the results will be the elimination of all future serious and
16 fatal accidents; also, the new "T" interchange design will be very
17 safe for vehicles passing through the new interchange from any
18 direction as vehicles are never required to cut across lanes of
19 high speed traffic when making transitions between the two lane
20 highway and the four lane expressway; and any vehicles passing in
21 front of one another would at most be traveling at only a few miles
22 an hour, thus, any accidents would be minor; additionally, "on
23 ramps" and "off ramps" can be provided so that vehicle making
24 transitions are able to get up to speed before merging with high

1 speed traffic; also, the new simplified interchange design will not
2 be confusing for vehicles passing through the interchange from any
3 direction even if the interchange is built on a curving expressway,
4 and the interchange would very inexpensive to build when compared
5 to the cost to build a conventional interchange, as the simplified
6 design for a "T" interchange can built for approximately 20% to
7 25% of the cost of a traditional interstate interchange thereby
8 saving government transportation departments millions of dollars,
9 additionally, the simplified "T" interchange design may only take
10 up 20% to 25% of the space of a conventional expressway freeway
11 interchange, thereby saving money and land for other uses.

12

13 12. (Previously submitted) The simplified "T" interchange design of
14 claim 11 including an exit ramp from said first road surface
15 connecting onto said third road surface.

16

17 13. (Previously submitted) The simplified "T" interchange design of
18 claim 11 including an exit ramp from said third road surface
19 connecting onto said first road surface.

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21 14. (Currently amended) The simplified "T" interchange design of
22 claim 11 including a traffic signal , or stop sign at the end of
23 said third road surface substantially where said third road surface
24 meets said second road surface.

1 15. (Currently amended) The simplified "T" interchange design of
2 claim 11 including a traffic signal , or stop sign at the end of
3 said exit ramp substantially where said exit ramp from said second
4 road surface meets said third road surface.

5

6 16. (Cancel)

7

8 17. (Previously submitted) The simplified "T" interchange design of
9 claim 11 including an "up ramp" on said first surface originating
10 at the ground level of said interchange location, said "up ramp"
11 rising to meet the top of said bridge; and, a "down ramp"
12 originating at said top of said bridge, said "down ramp"
13 terminating at said ground level of said interchange location.

14

15 18. (Currently amended) The simplified "T" interchange design of
16 claim 11 wherein said bridge is an arched bridge with Brownstone
17 color & texture that is similar to native brownstone located
18 Bayfield County Wisconsin;

19 thereby providing a design that would ~~be very attractive~~ and
20 ~~could~~ be a land mark and ~~could be referred to as~~ "a gateway" to the
21 local national park and Apostle Islands; additionally an arched
22 brownstone bridge could be designed to look as if it were built
23 hundreds or even a thousand years ago similar to Roman Bridges
24 built in Europe more than a thousand years ago.

1

2 19. (Cancel)

3

4 20. (cancel)

5

6 21. (New) The simplified "T" interchange design of claim 4
7 including a traffic signal ,or stop sign at the end of said third
8 road surface substantially where said third road surface meets said
9 second road surface.

10

11 22. (new) The simplified "T" interchange design of claim 4
12 including a traffic signal ,or stop sign at the end of said exit
13 ramp substantially where said exit ramp from said second road
14 surface meets said third road surface.

15

16 23. (New) The simplified "T" interchange design of claim 4
17 including an exit ramp from said first road surface connecting onto
18 said third road surface.

19

20 24. (new) The simplified "T" interchange design of claim 4
21 including an exit ramp from said third road surface connecting onto
22 said first road surface.

23

24 25. (New) The simplified "T" interchange design of claim 4

1 including an "up ramp" on said first surface originating at the
2 ground level of said interchange location, said "up ramp" rising to
3 meet the top of said bridge; and, a "down ramp" originating at said
4 top of said bridge, said "down ramp" terminating at said ground
5 level of said interchange location.

6

7 26. (New) The simplified "T" interchange design of claim 6
8 including a traffic signal ,or stop sign at the end of said third
9 road surface substantially where said third road surface meets said
10 second road surface; and

11 a traffic signal ,or stop sign at the end of said exit ramp
12 substantially where said exit ramp from said second road surface
13 meets said third road surface.